WO 2005/048011 PCT/US2003/035034

11

CLAIMS

1	1.	A system for obtaining at least one content the requested by a content user	
2	from a conten	t provider for remote site downloading at a hotspot and delivering the at least	
3	one content file after arrival of the content user at the hot spot, the system comprising:		
4	a cache server having:		
5		means to connect to a data network;	
6		means to download the at least one content file from content providers over	
7	the data network upon receipt of a proxy;		
8		means to store the at least one downloaded content file; and	
9		means to locally deliver at the hot spot the at least one stored content file to	
10	the content user which requested the content file.		
1	2	The system of claim 1 wherein the means to locally deliver the content file	
2	comprises a wireless router at the hot spot.		
1	3.	The system of claim 1 wherein the cache server comprises:	
2	means to dynamically create a directory for a content user when a content file		
3	requested by the content user is downloaded from the content provider;		
4	means to store the downloaded content file in the directory corresponding to the		
5	content user; and		
6	means to synchronize the downloaded content file to the content user when the		
7	content user	is at the hot spot.	
		·	
1		_The system of claim_1 wherein the means to share stored content files for	
2	multiple cont	ent users comprises at least one dynamic user directory.	
1	5.	The system of claim 1 wherein the cache server is a networked set-top box.	
1	6.	The system of claim 1 wherein the proxy is a data set.	
_	_		
1	7.	The system of claim 1 wherein the proxy is a data set comprising cookies.	

WO 2005/048011

12

PCT/US2003/035034

1 8. The system of claim 1 wherein the proxy is a data set or executable object 2 contained in an e-mail or an instant message received by the cache server.

- 1 9. The system of claim 1 wherein the data set comprises data identifying the content file, content provider, content user, and/or expected time of arrival at the hot spot.
- 1 10. The system of claim 1 wherein the means to locally deliver comprises a
 2 wireless router or access point bridge at the hot spot, programming to enable the content user
 3 to log in at the hot spot with a mobile device and, upon authentication of a logged in content
 4 user, routing the content file to the content user's mobile device.
- 1 11. The system of claim 1 wherein the cache server is a networked, Internetenabled digital storage device.
 - 12. A system for facilitating the transferring of a content file from a content provider to a content user client device comprising:
 - means for generating a proxy that identifies the content file, content provider, and content user; and
- 5 means for transmitting the proxy to the cache server at a hot spot.

1

2

3

4

- 1 13. The system of claim 12 further including a cache server at the hot spot which 2 has means to download the content file from the remote content provider according to the 3 transmitted proxy and means to locally transmit the content file to a content user mobile device, said means to locally transmit the content file comprising means in the cache server 4 5 for receiving and decoding a proxy containing parameters comprising an identification of the 6 content file to be downloaded and the Internet address of the content provider; means for 7 executing the proxy to download the identified content file from the identified cache server; 8 and means for transferring the downloaded content file to the content user mobile device at 9 the hotspot.
- 1 14. The system of claim 12 further comprising means for obtaining parameters 2 including at least the identity of the content file, the identity of the content provider, and the

1

2

3

1

2

. 3

4

5 6

7

8

- 3 identity of the hotspot having the cache server, wherein the means for providing the proxy
- 4 comprises means for providing a proxy using the obtained parameters.
- 1 15. The system of claim 12 further comprising means for the content user to pay 2 the content provider and/or a remote downloading service provider for permission to 3 remotely download the content file to the cache server at the hotspot and/or for locally 4 transferring the content file from the cache server to a mobile device.
- 1 16. The system of claim 12 wherein the means for obtaining parameters comprises 2 means for capturing a request to the cache server to download the content file; and means for 3 extracting at least some of the parameters from the captured request
 - 17. The system of claim 12 wherein the means for providing a proxy comprises means for providing a proxy including computer code which, when executed at the hotspot, causes the content file to be downloaded from the content provider.
 - 18. A system for facilitating the transferring of a content file from a remote content provider to a cache server over the Internet and for locally transferring the content file to a content user mobile device comprising:
 - means in the cache server for receiving and decoding a proxy containing parameters comprising an identification of the content file to be downloaded and the Internet address of the content provider;
 - means for executing the proxy to download the identified content file to the identified cache server; and
- 9 means for transferring the downloaded content file to the content user mobile device.
- 1 19. The system of claim 18 further comprising means for storing the received 2 proxy; wherein the proxy comprises data identifying a time at which the content file is to be 3 downloaded from the content provider; and wherein the means for using the proxy comprises 4 means for using the stored proxy to download the content file from the content provider at the 5 time indicated in the parameters of the proxy.

WO 2005/048011 PCT/US2003/035034

20. The system of claim 18 wherein the means for receiving a proxy comprises means for receiving a proxy containing parameters including content user authentication data required for the content user to synchronize with the cache server and obtain access to the downloaded content file; and wherein the means for using the proxy comprises means for using the user information contained in the proxy to download the identified data from the identified at least one server.

21. A computer program product comprising a computer usable medium having computer readable code embodied therein, the computer readable code, when executed, causing a computer to implement a method for facilitating the transferring of a content file from a remote content provider to a cache server at a hot spot and later to a local content user client device comprising:

providing a proxy that facilitates the downloading of a content file to a cache server from a remote content provider over the Internet using Internet protocol; and transmitting the proxy to a cache server capable of using the proxy to download the content file from the remote content provider over the Internet and later transfer the downloaded content file to the client device.

- 22. The computer program product of claim 21 wherein the implemented method further comprises obtaining parameters including at least the identity of the content file, the identity of the content provider, the identity of the cache server, and identity of the content user; and wherein, in the implemented method, providing a proxy comprises providing a proxy using the obtained parameters.
- 23. The computer program product of claim 21 wherein, in the implemented method, obtaining parameters comprises capturing a content user request to the content provider for permission for the cache server to download the identified content file; and extracting at least some of the parameters from the captured request.

والمتعارض والمتعارض المتعارض والمتعارض والمتعا

1 24. The computer program product of claim 21 wherein, in the implemented 2 method, providing a proxy comprises providing a proxy including computer code which, 3 when executed, causes the content file to be downloaded from the content provider.

WO 2005/048011

10

3 7

PCT/US2003/035034

-	_
7	-
	. 3

1 A method of caching content files at a hot spot for a plurality of content users 25. 2 who have requested, prior to being present at the hotspot, a content file to be downloaded from a content server and stored for delivery when the content user is present at the hot spot 3 4 comprising 5 a. providing at the hot spot an Internet-enabled cache server; 6 b. upon receipt at the cache server of a message which identifies a request for a content file ordered by a content user prior to being present at the hot spot, downloading the 7 8 content from the remote cache server over the Internet: 9 c. storing the downloaded content file at the hot spot; and 10 d. upon the content user mobile device logging in at the hot spot, transmitting the 11 content file to the content user mobile device. 1 26. The method of claim 25 wherein the content file is delivered to the content 2 user mobile device when the mobile device has logged in at the hotspot and the content user 3 mobile device requests the delivery. 1 27. The method of claim 25 wherein the mobile device is a wireless enabled 2 personal data assistant or a web-enabled cellular telephone. 1 28. The method of claim 25 wherein the message comprises a proxy for an order 2 for the content file. 1 2 29. A method for facilitating the transfer of a content file from a remote content 3 provider server to a content user mobile device comprising: 4 providing a wireless local area network at a hotspot; 5 receiving from the content provider server or the content user mobile device at the hotspot wireless local area network an authenticated download order for a content file request 6 7 sent by the content user mobile device to the content provider server over a different network: 8 downloading the content file at the hotspot wireless local area network, caching the 9 content file; and

upon the content user mobile client device signing in to the spot wireless local area

network at the hot spot, delivering the content file to the content user mobile client device.

2

3 4

	•		
1	30. A method for ordering a content file over a first network from a remote		
2	content provider at a first time and receiving the content file at a second time over a hot spot		
3	local area network (LAN) comprising:		
4	selecting a hot spot, ordering over the first network the content file from the remote		
5	content provider server at the first time for downloading at the selected hot spot;		
6	sending order identification data comprising a URL of the content file and a session		
7	specific cookie to the hot spot; upon or after reception of the order identification data at the		
8	selected hot spot LAN;		
9	downloading the content file from the content provider server and storing the content		
10	file in storage cache in the spot wireless local area network;		
11	synchronizing a content user mobile device at the second time to the hot spot LAN;		
12	and		
13	transferring the cached content file to the content user mobile device.		
1	31. The method of claim 30 wherein the session specific cookie comprises the		
2	identity of user information and payment status, the previously identified computer using th		
3	cookie to cause the data to be transferred from the at least one server to the computer.		
1	32. A method for facilitating the transferring of a content file from a remote		
2	content provider server to a content user mobile device comprising:		
3	providing a proxy that facilitates the downloading of the content file from the content		
4	provider server;		
5	transmitting the proxy to a cache server at a hot spot enabled to execute the proxy to		
6	download the content file from the remote content provider server; and		
7	upon the content user mobile device being synchronized and/or authenticated at the		
8	hot spot cache server, transferring the downloaded content file to the content user mobile		
9	device.		
1	33. The method of claim 32 further comprising obtaining parameters including at		

least the identity of the content file, the identity of the at remote content provider server, the

identity of the cache server at the hot spot, and identity of the content user; and wherein

providing a proxy comprises creating a proxy using the obtained parameters.

WO 2005/048011

2 programming.

1	34. A method for facilitating the transfer of content file from a remote content		
2	provider server to a content user mobile device comprising:		
3	programming in the mobile device which causes the mobile device, in response to		
4	content user input, to provide parameters to a cache server, the parameters including at least		
5	the identity of the content file to be downloaded and the identity of the content provider		
6	server and the cache server;		
7	in response to receiving the parameters provided by the mobile device, using the		
8	parameters to cause the identified content file to be downloaded from the remote content		
9	provider server; and		
10	in response to a communication received from the mobile device, transferring the		
11	downloaded content file to the mobile device.		
1	35. The method of claim 34 further wherein the mobile device contains the		